



IFW/2828

Patent  
Attorney Docket No. 82520  
Customer No. 23685

TRANSMITTAL LETTER

Inventor: Matthias Viehmann  
Serial No: 10/571,181  
Filed: 3-9-06  
Group Art Unit: 2828  
For: ARRANGEMENT FOR MONITORING ELECTRIC DEVICES ON STRAY LIGHT ARCS

Confirmation Number: 9626  
Examiner: Unknown  
Batch No:  
Notice of Allowance:  
ARRANGEMENT FOR MONITORING ELECTRIC DEVICES ON STRAY LIGHT ARCS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Transmitted herewith for the above-identified patent application are the following:


An English Translation of the International Preliminary Report on Patentability  
A return postcard

The item(s) checked below are appropriate:

1. ☐ Applicant(s) hereby petition(s) for a ( ) month extension of time to respond to an  
dated .


2. ☒ Please charge any fees or costs not accounted for to Deposit Account No. 11-  
1755.

Date: January 17, 2007

  
Edward M. Kriegsman  
Reg. No. 33,529

KRIEGSMAN & KRIEGSMAN  
30 Turnpike Road, Suite 9  
Southborough, MA 01772  
(508) 481-3500

I hereby certify that this correspondence is being deposited with the United States Postal  
Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450,  
Alexandria, VA 22313-1450 on January 17, 2007.

  
Edward M. Kriegsman

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference FHN03-1/01WO	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/EP2004/010449	International filing date ( <i>day/month/year</i> ) 09 September 2004 (09.09.2004)	Priority date ( <i>day/month/year</i> ) 09 September 2003 (09.09.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant FACHHOCHSCHULE NORDHAUSEN		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 7 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input checked="" type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Date of issuance of this report 12 June 2006 (12.06.2006)</td> </tr> <tr> <td style="padding: 2px;">Authorized officer  Agnes Wittmann-Regis</td> </tr> <tr> <td style="padding: 2px;">Telephone No. +41 22 338 89 70</td> </tr> </table>	Date of issuance of this report 12 June 2006 (12.06.2006)	Authorized officer  Agnes Wittmann-Regis	Telephone No. +41 22 338 89 70
Date of issuance of this report 12 June 2006 (12.06.2006)				
Authorized officer  Agnes Wittmann-Regis				
Telephone No. +41 22 338 89 70				

# PATENT COOPERATION TREATY

Translation

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See Form PCT/ISA/210**

Applicant's or agent's file reference

**FHN03-1/01WO**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/EP2004/010449**

International filing date (day/month/year)

**09.09.2004**

Priority date (day/month/year)

**09.09.2003**

International Patent Classification (IPC) or both national classification and IPC

**H01H9/50, H01B9/00**

Applicant

**FACHHOCHSCHULE NORDHAUSEN**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/010449

Box No. I      Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language  
\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/010449

Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/010449

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-28	YES
	Claims		NO
Inventive step (IS)	Claims	1-28	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-28	YES
	Claims		NO

2. Citations and explanations:

1 Reference is made to the following documents:

D1: DE 295 13 343 U1 (KLOECKNER-MOELLER GMBH,  
53115 BONN, DE) 19 December 1996 (1996-12-19)  
D2: US 5 146 528 A (GLEIM ET AL) 8 September 1992  
(1992-09-08)

2 Document D1 is considered to be the closest prior art. It discloses (the references between parentheses apply to this document):

An arrangement for monitoring electric devices to detect the occurrence of stray light arcs, consisting of at least one electric conductor (2) which is designed as a single-wire or multi-wire line or as a cable and connects devices, modules or circuit parts of the electric device to one another, means which guide (L1, L2, L3) the light produced by the formation of a light arc from the point where it is produced onto an optical/electrical converter, and a monitoring and evaluating device which is electrically connected

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/010449

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

to the converter and is designed to evaluate the signals of the converter, wherein the means which guide the light produced by the formation of the light arc onto the optical/electrical converter comprise at least one light wave conductor which surrounds one or several wires of the electric conductor,

from which the subject matter of independent claim 1 differs in that:

said at least one light wave conductor simultaneously electrically insulates a line or the cover of a cable.

2.1 The subject matter of claim 1 is thus novel (PCT Article 33(2)).

The problem addressed by the present invention can therefore be considered that of

ensuring that the occurrence of a light arc on said lines or cables is detected reliably and with less attenuation, and monitoring on all sides.

2.2 The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)), for the following reasons:

This solution is not indicated in the existing prior art. The person skilled in the art would not use the coaxial cable with light conductor

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/010449

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

insulation described in D2 to solve the problem of interest, since in this cable it is to be expected that no light arc will form and also no devices are provided for detecting foreign-induced light pulses.

- 2.3 Claims 2-28 are dependent on claim 1 and thus also meet the PCT requirements for novelty and inventive step.